

ABSTRACT

A method for executing a software update of a control unit by
flash programming a flash memory of the control unit having
5 multiple segments via a serial interface, demands on the flash
programming procedure being established, a sequence of the
flash programming procedure being specified by a finite-state
machine which defines states and transitions of the software,
and availability, security, and reliability requirements of
10 each state and each transition of the finite-state machine
being checked. In addition, described are a corresponding
finite-state machine and a computer program for automatically
checking the availability, security, and reliability
requirements.